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Examiner

: Michael C. Miggins

Serial No.

: 09/778,334

Filed Inventors : February 7, 2001: Scott W. Huffer

Title

: Jeffrey M. Schuetz

: PACKAGING MATERIAL, : METHOD OF MAKING IT, AND

: PACKAGE MADE THEREFROM

SUPPLEMENTAL DECLARATION OF SCOTT W. HUFFER

Mail Stop AF

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

I, Scott W. Huffer, declare as follows:

- 1. I am a Research and Development associate with the Packaging Development Center of Sonoco Products Company of Hartsville, South Carolina ("Sonoco"). I have a B.S. in Chemical Engineering and nineteen years of experience in the printing and converting industry.
- 2. I understand that this declaration is to be submitted to the U.S. Patent Office as part of a response to the office action mailed on July 22, 2005 in the above-referenced application.
- 3. This declaration is supplemental to my prior declarations that were submitted to the Patent Office on April 16, 2003 and May 2, 2005.
- 4. Claim 1 of this application recites, among other things, an energy-cured release layer comprising a reacted-in slip agent.

5. The ordinary and customary meaning of the term "reacted-in", as understood by one skilled in the art, is that the compound being described is chemically bonded to one or more compounds in its surrounding environment.

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- 6. One skilled in the art understands that an energy-cured layer is a coating that was initially applied in liquid form and then cured by an energy source so as to become a solid. One skilled in the art further understands that the curing process involves cross-linking of monomers with oligomers to form a stable polymer network.
- 7. Based on the ordinary and customary meaning of the term, one skilled in the art would understand that the "reacted-in" slip agents in the energy-cured coating are chemically bonded to the polymer network. As discussed in my May 2 declaration, the reacting in occurs when carbon-carbon double bonds of the slip agent and the surrounding polymer network are broken, and cross-linking and polymerization between the slip agent and the polymer network occur.
- 8. The ordinary and customary meaning that one skilled in the art would attribute to the terms "energy-cured" and "reacted-in" is consistent with the description provided in the specification. Specifically, page 6, line 17 and following describe the energy-curing process. The specification explains that when exposed to energy (*i.e.*, an electron beam), acrylate monomers react into the epoxy acrylate chains to form cross-links. The specification also indicates that various additives, including slip agents, can be included in the electron beam cured coating, and that these additives can become "reacted-in" during polymerization of the coating. Based on these and other passages within the specification, one skilled in the art would understand that the meaning of the term "reacted-in", as used in the specification and in claim 1, is consistent with its ordinary and customary meaning in the art.

- 9. Therefore, one skilled in the art would understand that a reacted-in slip agent is a slip agent that is chemically bonded to the polymer network of the energy-cured coating.
- 10. I have read and understand the subject matter of U.S. Pat. No. 5,888,649 to Curatolo. Curatolo discloses the use of a radiation-curable release layer in combination with certain adhesives. At Col. 16, lines 59-64, Curatolo indicates that the adhesives include hot melt, pressure sensitive adhesives and any adhesive "which forms an aggressive adhesive bond to the substrate and to any other surface to which the substrate is adhered."
- 11. One skilled in the art would not expect to achieve the same results when using an energy-cured coating as a release layer for a cold-seal cohesive as one would obtain when using an energy-cured coating as a release layer for the adhesives of Curatolo because cohesives and adhesives have different chemical and bonding properties. Based on a reading of Curatolo, one skilled in the art would not have an appreciation that an energy-cured coating could be used as a release layer for a cold-seal cohesive.
- 12. In addition, even if one skilled in the art were considering the use of an energy-cured coating as a release layer for a cold-seal cohesive, a reading of Curatolo would not provide one with a reasonable expectation of success in using it for that purpose. Instead, significant testing would be required to determine whether an energy-cured coating could be used as a release layer for the cohesive.

The undersigned declares that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the

United States Code and thus such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Scott W-Huffe

Research and Development Associate Sonoco Products Company